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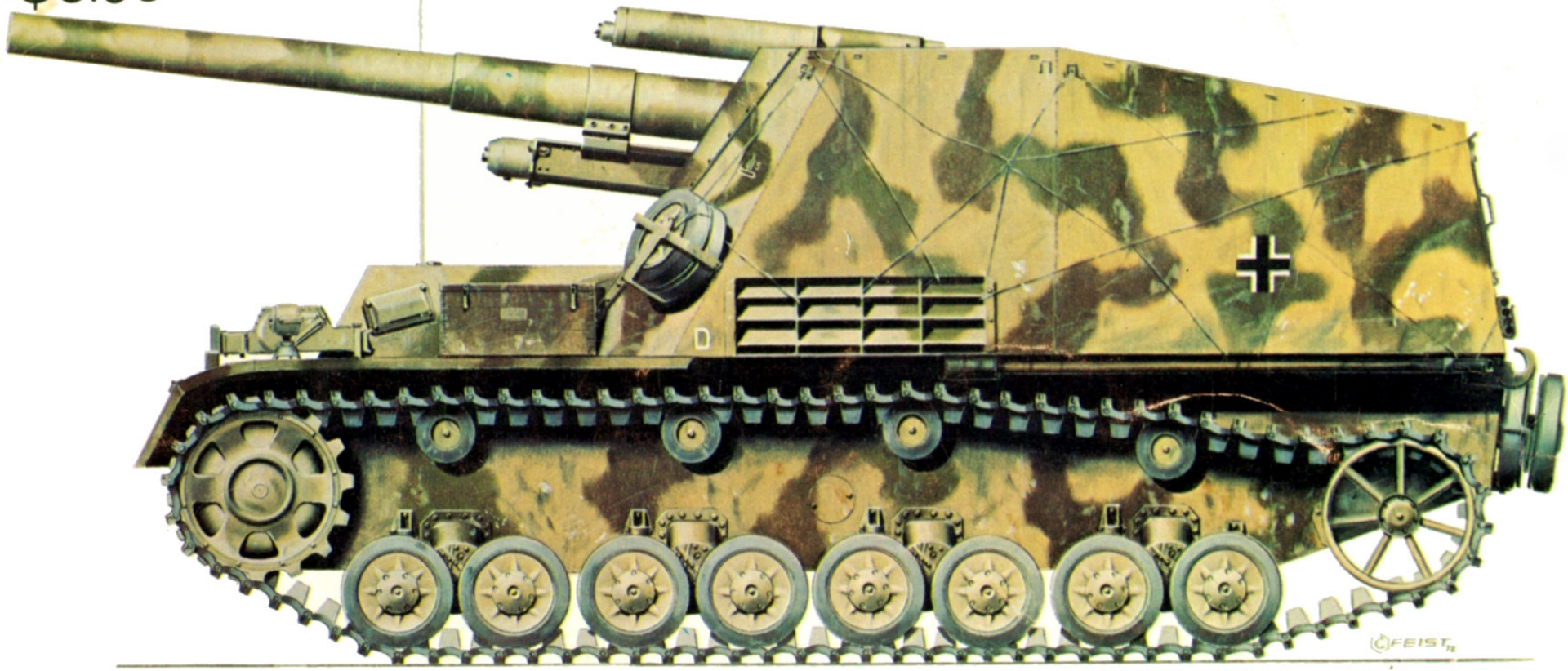

Schwere Panzerhaubitze 18/1 (Sf.) "Hummel" (Sd.Kfz. 165) 15 cm s.FH. 18(M)

Nashorn, Hummel, Brumbär in Action

Nashorn, Hummel, Brummbär in Action

created by Uwe Feist

captions by Mike Dario

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Introduction

The **Armor in Action** series is a new concept. Between the covers of this book can be found some of the finest wartime photographs ever taken. There is no text to speak of, since we feel there are enough publications available describing armor in detail, but lacking the photo coverage the discriminating collector and model builder is seeking.

The photographs in this book are unique in the sense that they are primarily of operational vehicles. These are not manufacturers publicity photos that have been seen time after time, but propaganda shots that were intended for publication in various wartime publications. At least 90 per cent of the pictures in this book have never been published before and it is our hope that you, the reader, will enjoy them for what they are.

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Aberdeen Proving Grounds

The commander of this **Panzerjäger (Tankhunter)** reaches for a message delivered by horseback. The gun of another **Nashorn** is just barely visible below the vehicle commander's outstretched arm. One can see the traveling mount for the long-barreled gun folded in its stowage position on the front engine cover of the vehicle.

Panzerjäger "Nashorn"

8.8 cm Pak 43/1 L/71 auf Sf. IV (Sd.Kfz. 164)

One of the most important weapons in the arsenal of the German armed forces of the Second World War was the **88 millimeter gun**, and one of the more difficult tasks that the German ground forces were faced with was moving the **88 millimeter guns** from point to point whenever they were most needed in battle.

After the campaigns in the East started, it became more and more apparent to the **High Command** that the towed **88 millimeter weapons** were simply too heavy and immobile for the primitive Russian roads and that some other means of moving them around was essential. The only time the large guns could be easily moved was in the late spring and in the summer. The rest of the time, the roads were virtually impassable because of mud, ice, or snow. There had to be a way, other than towing.

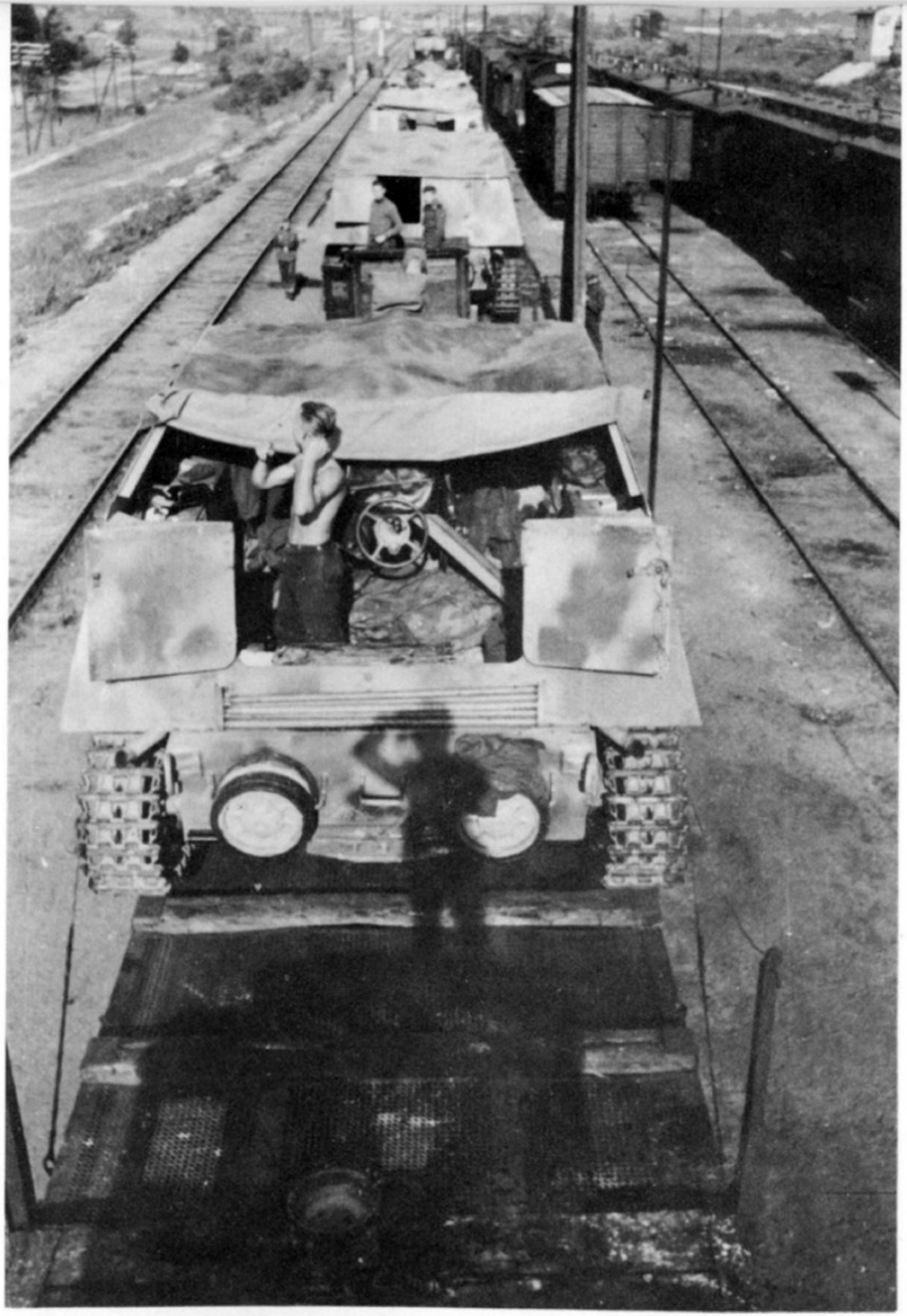
A solution was rapidly found, and it came in the form of the workhorse of the German Panzer Corps; the **PzKpfw IV** tank. The **Panzer IV** had performed admirably well during the horrible Russian winter of 1941, although it was not without some problems of its own. Although the vehicle's load-carrying capacity was severely limited, it could be mounted with an **88 millimeter multi-purpose gun** when removed from its cruciform base. Because of the weight limitations on the chassis when the gun was mounted, only very light armor could be carried to afford the crew protection.

When these vehicles with their new armament package began to arrive at the front for troop use, they rapidly began to prove their worth and effectiveness. They became, in effect, the single most important addition to the **Wehrmacht's** anti-tank forces up to that time. They began to reach the **Wehrmacht's** heavy anti-tank batallions of **Panzer divisions** in the spring of 1942, and by the summer of the year had already begun to make a name for themselves– **Hornisse (Hornet)**.

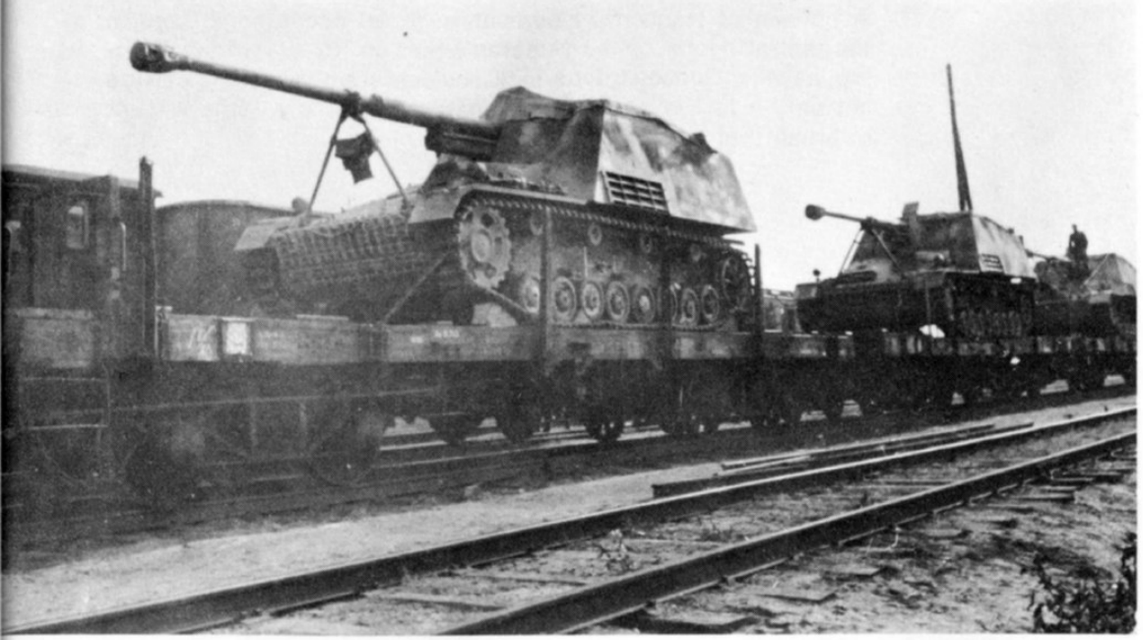
When word got back to Germany that the troops were calling these new anti-tank weapons **Hornisse** it did not set right with the **Führer's** ears. In his own mind, he saw the vehicles not as insects with painful stings, but more as lumbering behemoths with strength and force enough to crush anything in their way. By **Führer** decree to the armed forces, he named the vehicles **Nashorn (Rhinoceros)** and forbade the army to refer to them as **Hornisse** henceforth.

The **Sd.Kfz. 164 (Nashorn)** was well distinguished by her open fighting compartment and her forward-mounted engine. She carried a five man crew and forty to forty-five rounds of **88 mm ammunition** in her internal storage boxes. She could also be easily distinguished by her long **88 mm gun** barrel and the large muzzle brake.

Production of these vehicles ran only from early 1942 until mid-1944. They were only an interim solution–a transitional step to what was considered an even better anti-tank weapon; the **Jagdpanther**.



An excellent view of a trainload of **Nashorns** preparing to move up to a "hot" part of the front. Very obvious is the open crew compartment and the canvas cover on the vehicle in the foreground. A close look at the photo will reveal the shadow of the photographer on the rear end of the first vehicle.



Part of a "fire brigade" prepares to move to the scene of a new conflagration. The **Sd.Kfz. 164** was quite well suited for railroad movement since its chassis was originally designed with certain limitations. One of the limitations was the overall width of the chassis, which could not be more than the width of a German flatcar. This allowed it to be easily stowed and secured to rolling stock.

A last minute check before moving out. Note the very clean appearance of these brown and yellow camouflaged vehicles and the nickname **"Löwe"** (Lion) painted on the side of the vehicle in the foreground.

A column of **Nashorns** moves through an occupied village in the central sector of the Russian Front on its way to the fighting, as other German troops look on. Vehicle number **132** carries not only a full complement of spares, but also a large amount of brush that serves as camouflage.

With their parka hoods up over their heads, the crews of these vehicles hold on as the column moves swiftly through this Russian village, heading for a "hot" spot. The **Nashorns** proved to be a very successful addition to German anti-tank units, especially when facing **T-34s** and the larger **Klimenti Voroshilov (KV)** tanks.

"Here they come—A target is in sight". This **Nashorn** has moved up to a firing position between two abandoned wooden buildings on the edge of this Russian village and has spotted an enemy tank. Note the gunner sighting in on the target as the vehicle commander (in parka) issues final instructions.

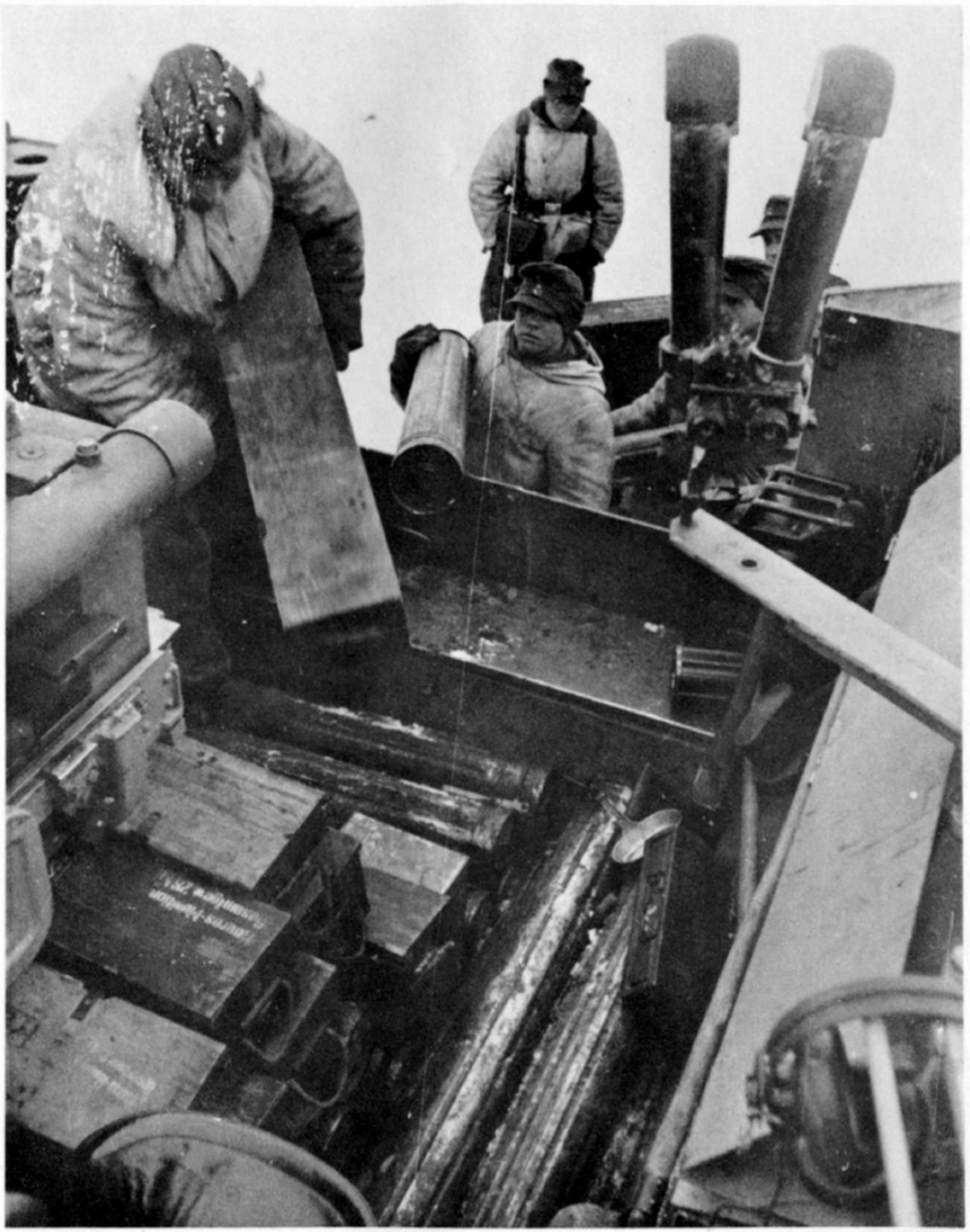
"FIRE!" Everything shakes at the bark of the big **88 mm gun,** including the buildings on either side of it. The gunner has his fingers stuck into his ears to protect them. Although the fingers in the ears helped temporarily, the majority of the crews did have their hearing impaired for weeks after leaving the front. Some of them never regained total hearing.

The result of a direct hit on a **T-34.** These two proud members of a **Nashorn** crew sport their newly-won medals for the propaganda photographer. The officer on the left; a **Knight's Cross,** and his gunner on the right; an **Iron Cross First Class.**

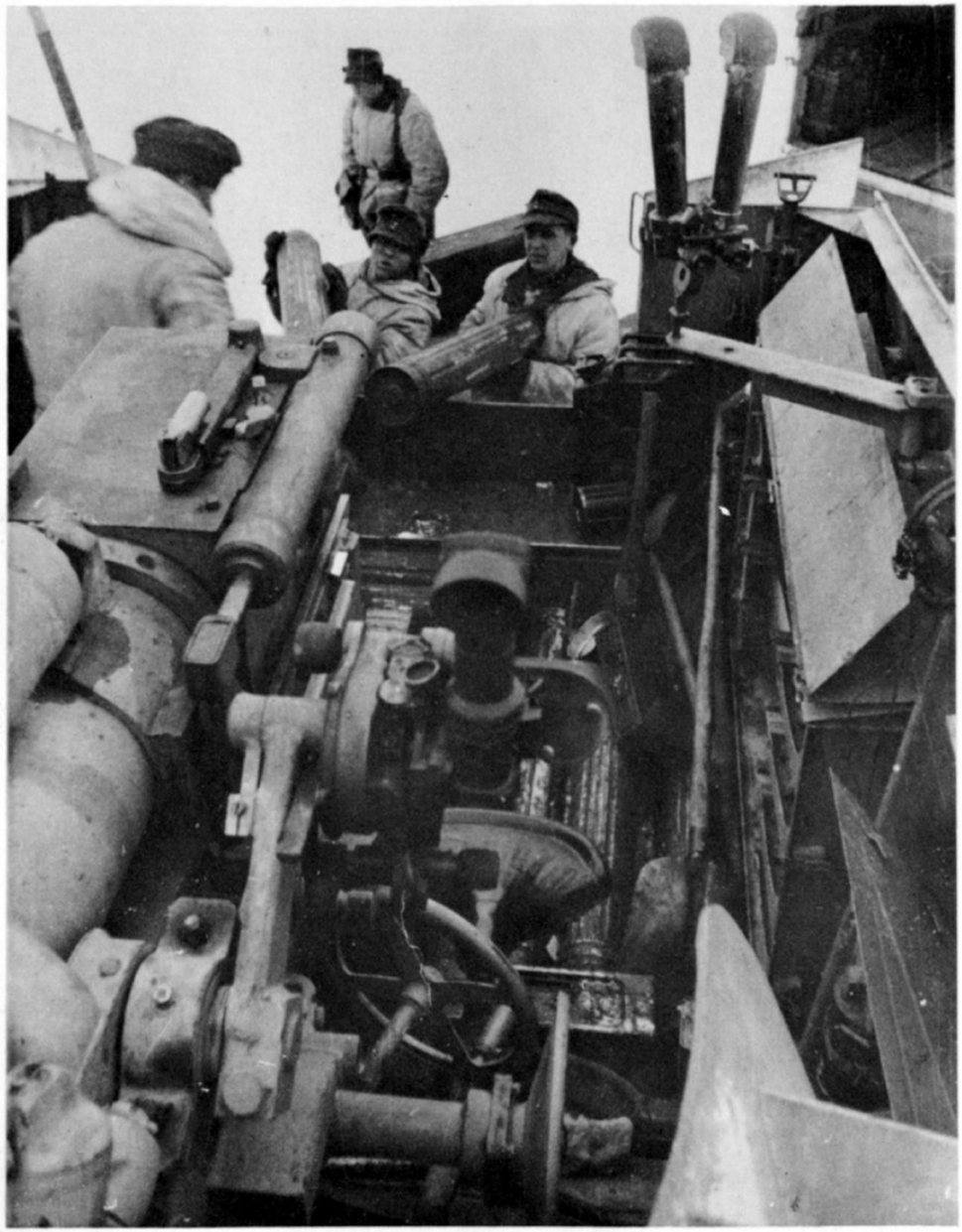
The driver of this **Nashorn** climbs out of his hatch to adjust his eyes to the daylight and his body to the chilly autumn weather. Temperatures inside a sealed armored vehicle with the engine going adjacent to the driver often climbed to 120 degrees Fahrenheit.

Here on the outskirts of a village, a number of armored vehicles wait in reserve. In the foreground; a **Nashorn** with its long-barreled **88 mm** gun. In the background are three late-model **Panzer IV** tanks with full turret and side skirting, as well as the highly effective long **75 mm** guns.

With its **88 mm** gun locked protectively into its transporting brace, this **Nashorn** rests while its crew goes about replenishing **88 mm** ammunition from a **"Maultier"** tracked supply vehicle in the background. Note the built-up driving compartment on the left side of the **Nashorn** and the sloping 30 mm armor plating surrounding it. This vehicle carries three rather large logs on its bow plate, used for unditching and extra bow protection.



An excellent view of the fighting compartment of the **Nashorn** taken from the front of the vehicle. In the view are the gunner's controls, seat and sighting apparatus. The handle for the breech is visible on the top of the breechblock in its folded position.



Crewmembers transfer and stow the **88 mm** ammunition on the floor of the fighting compartment of the vehicle. The armor-piercing rounds are stowed in the cylindrical metal cannisters, while the high-explosive rounds are stored in the wooden boxes.

Another good shot of the fighting compartment; this one showing the right hand side of the big **PaK 43 88 mm** gun. Notice the large pair of observation glasses mounted on the pivot at the right of the photo. These glasses enabled the vehicle's commander not only to closely observe his surroundings from the protection of the armored fighting compartment, but also to observe the fall of his own gun's shot.

Here, one of the **Nashorn's** crew members slides an **88 mm** round into the fighting compartment of his vehicle. The open locker on the side of the fighting compartment was used to accomodate rounds of ammunition, as was also the floor of the compartment. The wooden boxes were much coveted, as they provided fuel for fires in the cold winter.

"Puma", an **Sd.Kfz. 164**, gets a load of ammunition. The twine and wire that crisscrosses the sides of the vehicle was used to secure branches and brush that was inserted to provide additional camouflage for the vehicle and its crew.

Sturmpanzer "Brummbär"

An old **Grizzly Bear** at rest. This vehicle is on display at the armor museum of the **Aberdeen Proving Grounds** in the State of Maryland, her big gun elevated to its maximum extent and welded thoroughly so she'll fire no more.

Sturmpanzer IV "Brummbär" 15 cm Stu.H. 43L/12 (Sd.Kfz. 166)

When it was proven in 1942 that the **Wehrmacht** lacked vehicles capable of providing close-in infantry support in heavily built-up areas, like the streets of Stalingrad, the German **Ordnance Office** thought that it had best come up with one, and soon, too.

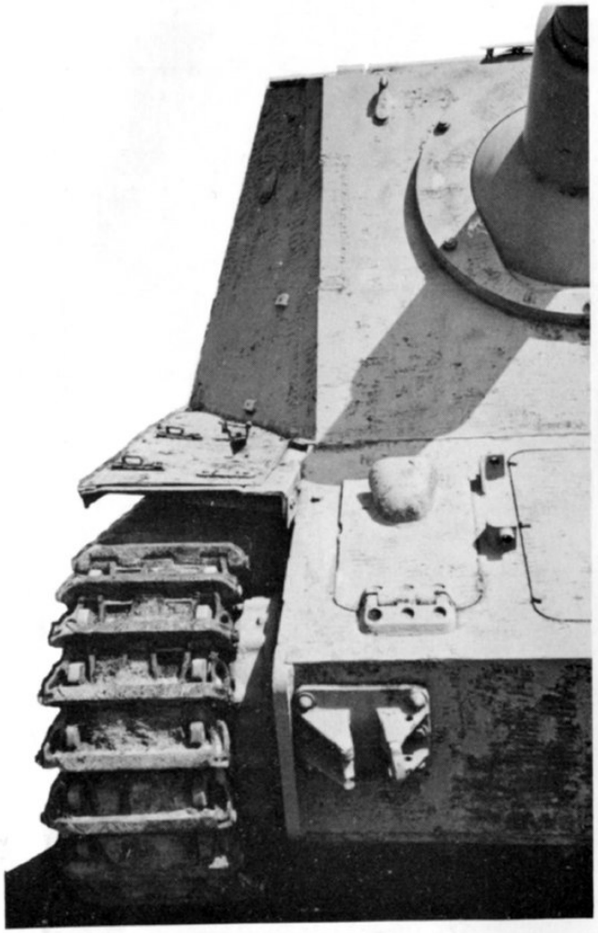
The solution was close at hand, for development of the **Nashorn** was progressing rapidly and the chassis of the **Panzer IV** tank was ultimately to provide a basis for the first infantry close support heavy weapon, the **Brummbär.**

Built on the chassis of the venerable **Pz.Kpfw. IV**, the **Sd.Kfz. 166** mounted a 150 mm howitzer with a barrel only 12 calibers (12 x 150 mm, or 180 centimeters) in length. It was capable of reducing heavily built-up fortifications such as thick concrete walls and bunkers to large heaps of rubble in short order. It featured 100 mm frontal armor at a 50 degree slope to provide excellent protection for its crew.

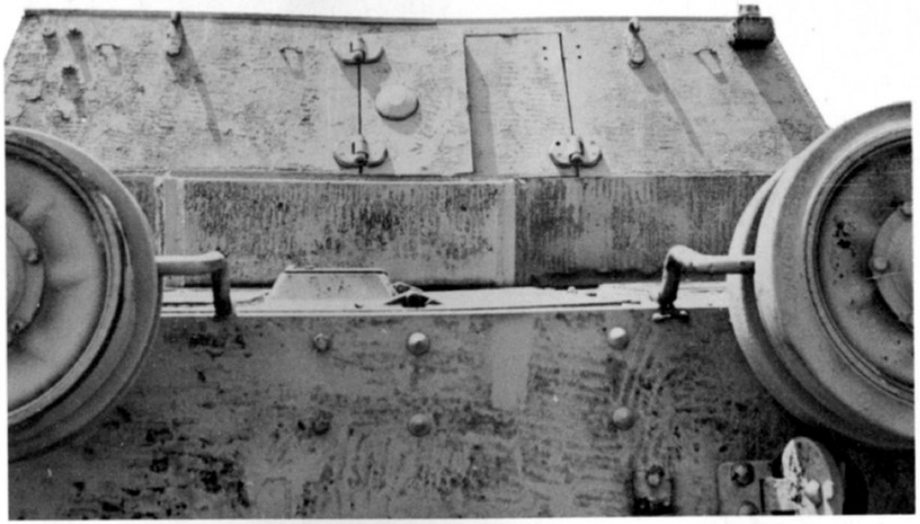
The first variants of the **Grizzly Bear** went to infantry units in late 1943 and proved to be an excellent means of infantry support in all manners but one. She had no self-defense weapons, such as a machine gun, and Germany's enemies took their toll of these vehicles. Only the last few to be produced carried internal machine guns, but it was too late then.

The large amount of armor plating and the huge 150 mm howitzer severely overloaded the **Panzer IV** chassis that the **Grizzly Bear** was based on. Many times these vehicles had to be abandoned because of unrepairable breakdowns to the suspension systems, engines, and transmissions. Wherever they were able to go, though, they put fear into their enemies.

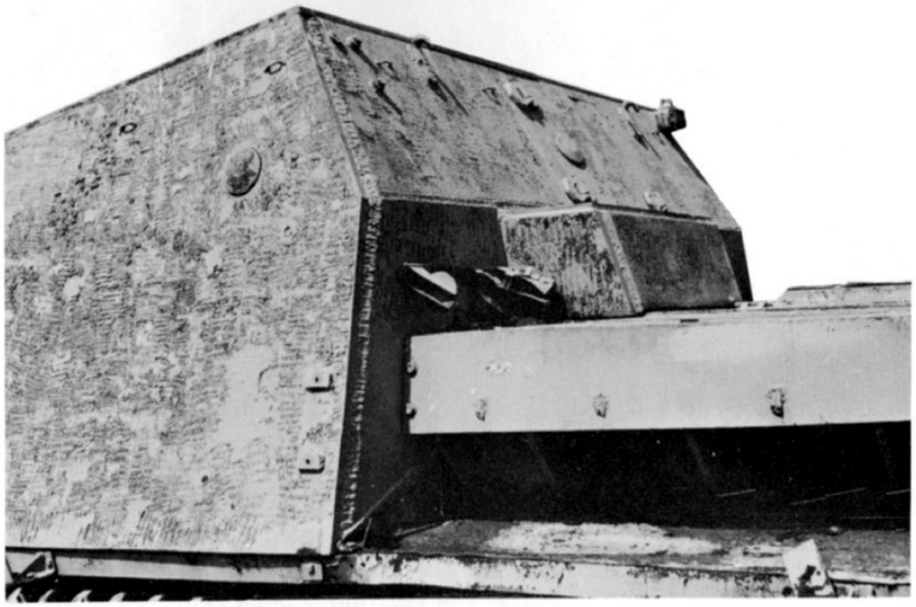
A **Brummbär** at war. This vehicle moves along a mountain road in Italy during the fighting in early 1944. Her big gun is covered to protect it from dust and dirt, while the hatches on the top of the fighting compartment are also covered with canvas. A close look at the front plate of the fighting compartment of the vehicle will reveal the scars that remain from small arms fire or shrapnel that struck the vehicle in earlier fighting.



A close look at the huge chunk of armor plate that made up the front of the fighting compartment of the **Grizzly Bear.** The front plate offered a 100 mm thickness (almost 4 inches) at a 50 degree slope from the horizontal; enough mass to stop virtually anything but a direct hit from a large caliber projectile.



A rear shot of the **Grizzly Bear.** Plainly visible are the double doors giving access to the fighting compartment. Note the welded on bars at the rear end of the engine compartment over which the extra pairs of bogey wheels were fitted.



A view from the side of the **Sd.Kfz. 166,** showing the massive side plates of the fighting compartment and the radiator intakes on the sides of the engine compartment. The small device at the top right of the fighting compartment's rear plate is the insulator and attachment point for the radio whip antenna.

Another view of the **Grizzly Bear** in the courtyard of a French chateau during the fighting in the north of France during the fall of 1944. The crew of the vehicle is conferring before moving out. The vehicle to the right is a **Panther**; to the right of the **Panther**, a long-barreled 75mm armed **Sturmgeschütz III**. Note the large amount of brush and leaves carried by the vehicles—a necessary precaution against low-flying Allied fighter bombers.

The black-jacketed crew of this **Grizzly Bear** grabs a quick meal before moving out. Other vehicles in the photo are: a **Panther** tank next to the **Grizzly Bear**, a **"Maultier"** armored half-track supply carrier on the left in the background of the photo, and a late model **Panzer IV** with turret-skirting and side skirts next to the **"Maultier"**.

Another **Grizzly Bear** that didn't make it to the end of the hostilities. This vehicle was lost to the Germans in a way that many other vehicles were lost. The transmission of the vehicle wore out and there was no time to put a new one in, so the crew of the vehicle abandoned it to the advancing British.

A last view of the "old soldier" at the **Aberdeen Proving Grounds armor museum.** She sits there today, her **"Zimmerit"** paste flaking away by the elements; the rubber tires on her bogey wheels cracked and decaying from dry rot. She's one of a kind in the United States, and with the same continued neglect, she may not be around too much longer. If the museum had additional funds, all pieces on display could be restored to original condition.

This **Grizzly Bear** was destroyed by an internal explosion, as is evidenced by the broken weld seams between the side plates, front plate, and the top of the fighting compartment. The tan, green and brown camouflage made the vehicle blend into most of its surroundings. Note the absence of **"Zimmerit"** cement paste on the sides of the fighting compartment and the side skirting.

Panzerfeldhaubitze "Hummel"

15 cm Panzerfeldhaubitze 18 auf Sf. IV "Hummel" (Sd.Kfz. 165)

The original plans for the German armored division called for both heavy and light batteries of armored artillery to provide indirect fire support for advancing elements of armored fighting vehicles. Such armored artillery did not reach the German armored divisions until late 1942 because of other industrial priorities and because the German armored divisions had been operating quite successfully without it up to that time.

The first vehicles to reach armored divisions were nicknamed **"Wespe"** (Wasp) and made up the batteries of light artillery. They were based on the chassis of the **Pz.Kpfw. II** and mounted the standard 105 mm howitzer field piece without its carriage or trails.

The vehicle that formed the backbone of the German armored corps' heavy artillery batteries was the 150 mm heavy field howitzer, **Model 18/1** on the combination **III/IV** self-propelled carriage, more commonly known as the **Sd.Kfz. 165 "Hummel"** (Bumblebee).

The **Hummel** did not begin to appear in armored units in any numbers until late 1943, most of them going to units on the East Front where fighting was the heaviest. At first **Hummels** went entirely to **Waffen-SS** armored divisions and then later to crack **Wehrmacht** armored units.

Although the vehicle had a large open fighting compartment, some of the first models were equipped with metal bracing and heavy gauge screening over the top of the open compartment to protect the crew from grenades and mines that could be thrown in by enemies.

The crews of these vehicles were all members of the artillery branch and did not wear the standard black double-breasted short jacket worn by members of the **Panzer** corps. They wore instead a jacket of the same cut as the **Panzer** jacket, but it was field grey or rush green in color with red piping.

The first **Hummels** built were based solely on the **Panzer IV** chassis, but further development produced what was known as the **Geschützwagen III/IV**, so named because of **Panzer IV** and **Panzer III** components, utilizing the best parts of both chassis.

This **Hummel** negotiates a small slope on the Russian Steppe with its big gun in the elevated position; a position not normally attained when the vehicle was in motion because of the possibility of damage to the gun. The **Hummel**, which normally carried a crew of six, seems to have a few extra riders along.

In this photograph, **Hummels** make up part of a counterattacking force along with a company of **Sturmgeschütz III** self-propelled guns. The men running in the foreground are on the way to mount a half-tracked command vehicle which has just started out.

A battery of **Hummel** heavy mobile artillery pieces rests alongside the road. Note the one artilleryman in the fighting compartment of the forward vehicle wearing the steel helmet and the rush-green jacket fashioned on the same pattern as the black tankers' jacket.

The crew of this big **Hummel** awaits the inspecting ordnance officer while undergoing a refitting behind the frontlines. The attachment points for the four extra pairs of bogey wheels on the machine's front quarter plates are plainly visible. The tactical sign on the right front plate is that of battery three of tracked (self-propelled) artillery.

Outside a small Italian village the crew of this **Sd.Kfz. 165** gathers for a few moments of peace before moving into action. These vehicles had storage space in lockers on both sides of the fighting compartment for between forty and forty-five **150 mm projectiles** and their powder charges, which were carried separately.

The driver of this **Mercedes Benz** has moved well over to the side of the road to allow the **Hummel** self-propelled gun to pass with some margin of safety. Interesting to note are the unit and tactical insignia on the passenger car. The left front fender bears a stencilled **Baron von Münchausen** riding a cannonball, the insignia of an as yet unidentified unit. The tactical insignia on the other fender is a large rectangle on two wheels, the symbol for a motorized company, while the large letters **"PK"** inside the rectangle denote **"Propaganda-Kompanie"**, signifying war correspondents. (Probably the vehicle in which the photographer who took the picture was riding.)

A **Hummel** negotiates some rocky terrain as the parka-clad crew looks on, enjoying the ride. The small rectangular wire frame welded onto the bow plate served as an aid to the driver when the driving compartment was sealed, as his field of vision was severely restricted.

A **Hummel** pulls itself into position within the column in an assembly area along with another **Hummel** and several **Sturmgeschütz III** self-propelled guns. When the necessity arose later in the war, these big **"Bumblebees"** acted as assault vehicles, but only rarely.

A section of a heavy artillery battery moves out heading for a protected firing position. All of the vehicles in the photo appear to be in fresh condition, indicating that the unit has recently completed a refit and had their vehicles reconditioned.

This **Sd.Kfz. 165** moves slowly forward with its **150 millimeter gun** locked in its traveling position. The field howitzer, **Model 1918/1** could hurl a 96 pound projectile over 13 kilometers, an excellent range for an indirect fire weapon of this caliber.

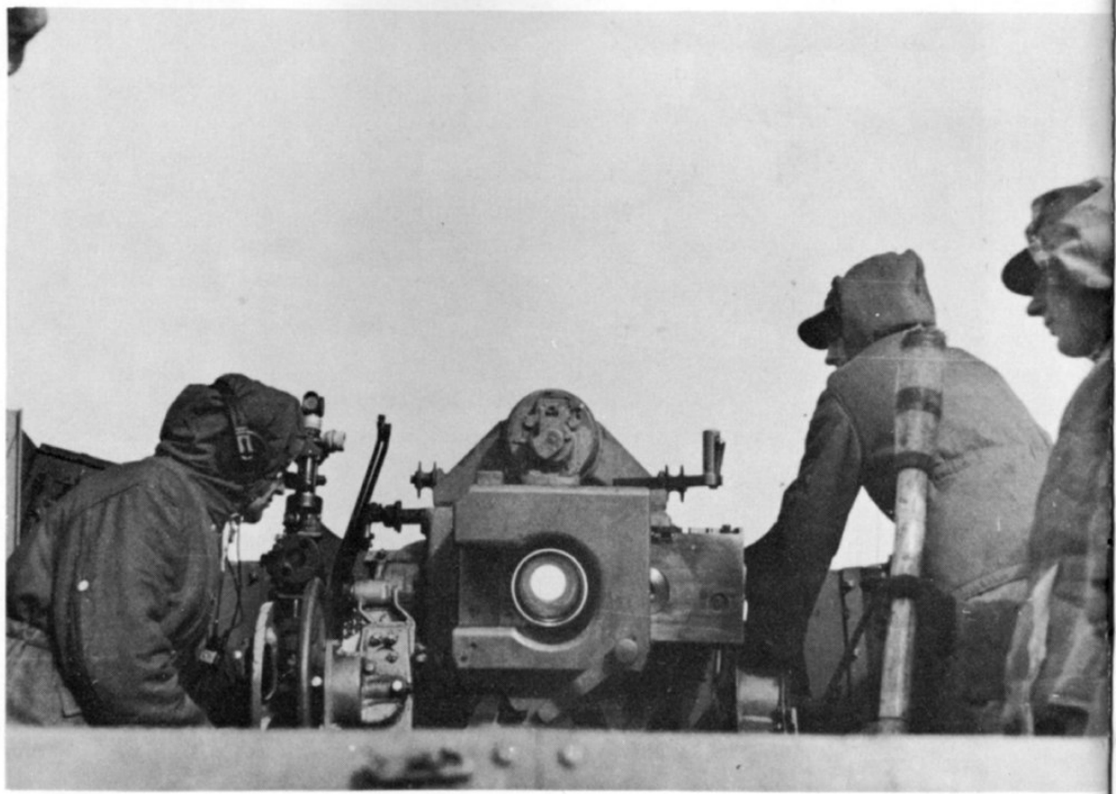
A battery of **15 cm self-propelled howitzers** is moving slowly across the steppes on the central sector of the Russian Front. Note that the vehicle in the foreground is fitted with the driver's wire grid on the bowplate in front of the closed driver's viewplate.

A **Hummel** leads a column of armored vehicles to a point in the rear of the lines to take over some reserve positions. This vehicle has an overall sand color scheme while the assault guns to its rear have the sand color oversprayed with medium brown for additional camouflage.

These vehicles move into a bivouac area behind the lines in Russia. Once again the wire grid driving aids may be seen on both of these **Hummels.**

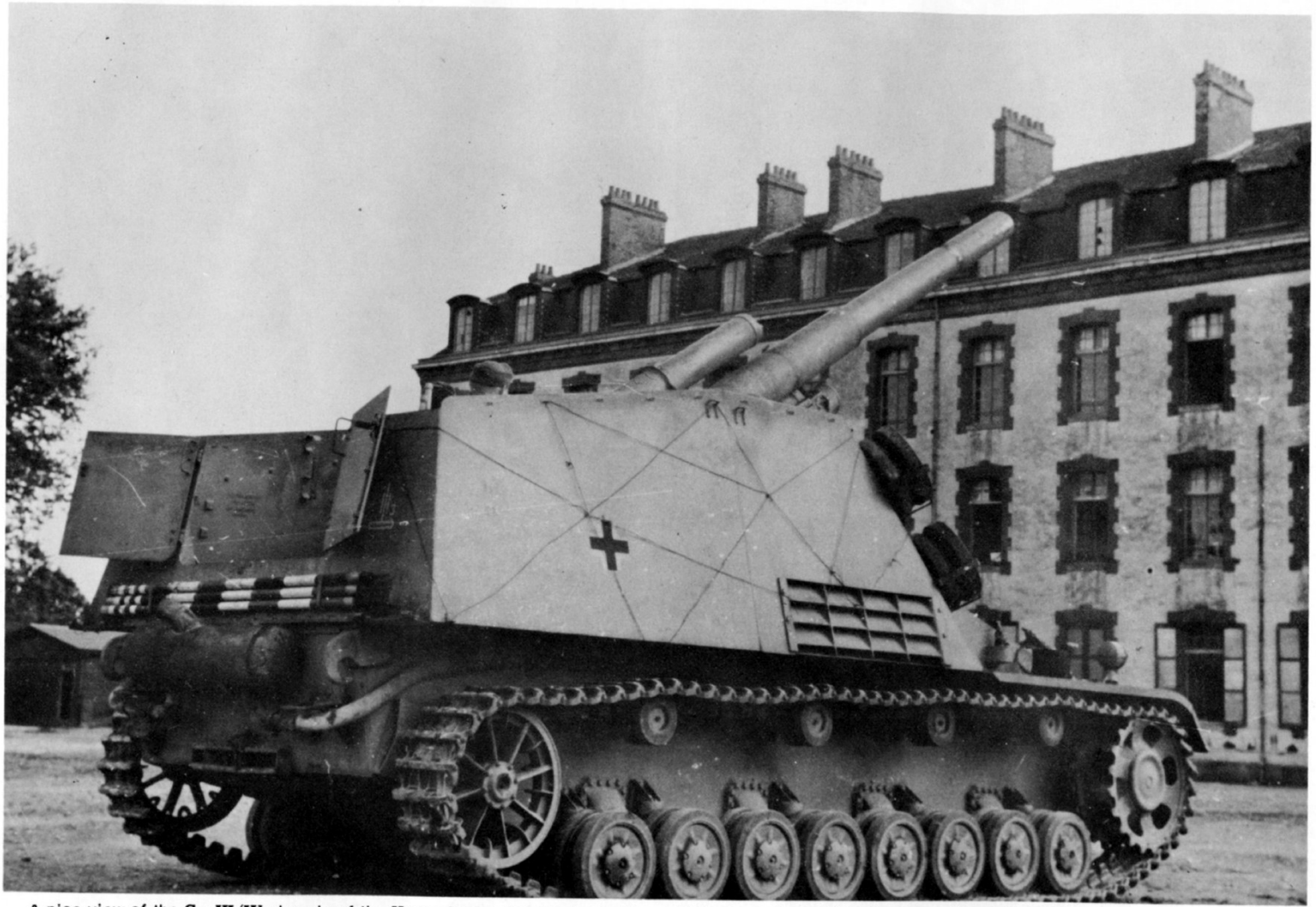
This gunner is using the large **ZE 34 sight.** The lens aperture at the top of the sight points to the rear. The gunner uses this aperture of the sight to line up on the aiming stakes that have been pounded into the ground to the rear of the vehicle. In order to determine the correct azimuth, he lines up the stake and takes an azimuth reading. Subtracting 180 degrees tells him where the barrel of the gun is pointing.

This fine view shows the open horizontal breech of the **Hummel's 150 mm gun** and the entire rifled length of the inside of the barrel of the tube.



The loader stands before the opened breech of the **150 mm gun** with a 96 pound high explosive projectile in his hands. The handle that opens and closes the horizontally sliding breech is visible on the right hand side of the breechblock top.

The projectile has been seated, the charge fitted, sighting corrections made and the gun is ready to fire. The gunner closest to the breech on the right side is holding the firing lanyard, ready to pull it at the gun captain's command.

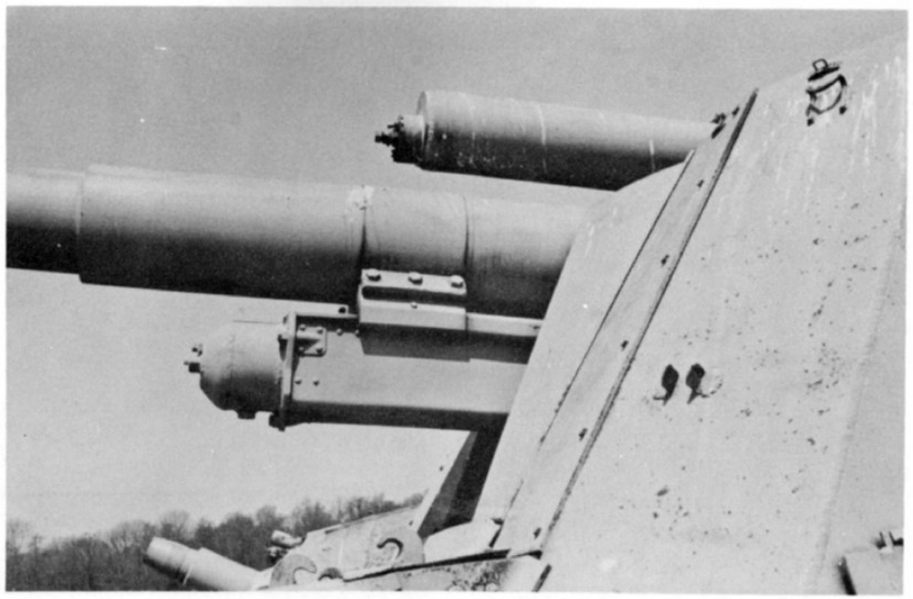


A nice view of the **Gw III/IV** chassis of the **Hummel;** showing the basic **Panzer IV** suspension and bogies, as well as the **Panzer III J** front drive wheels.

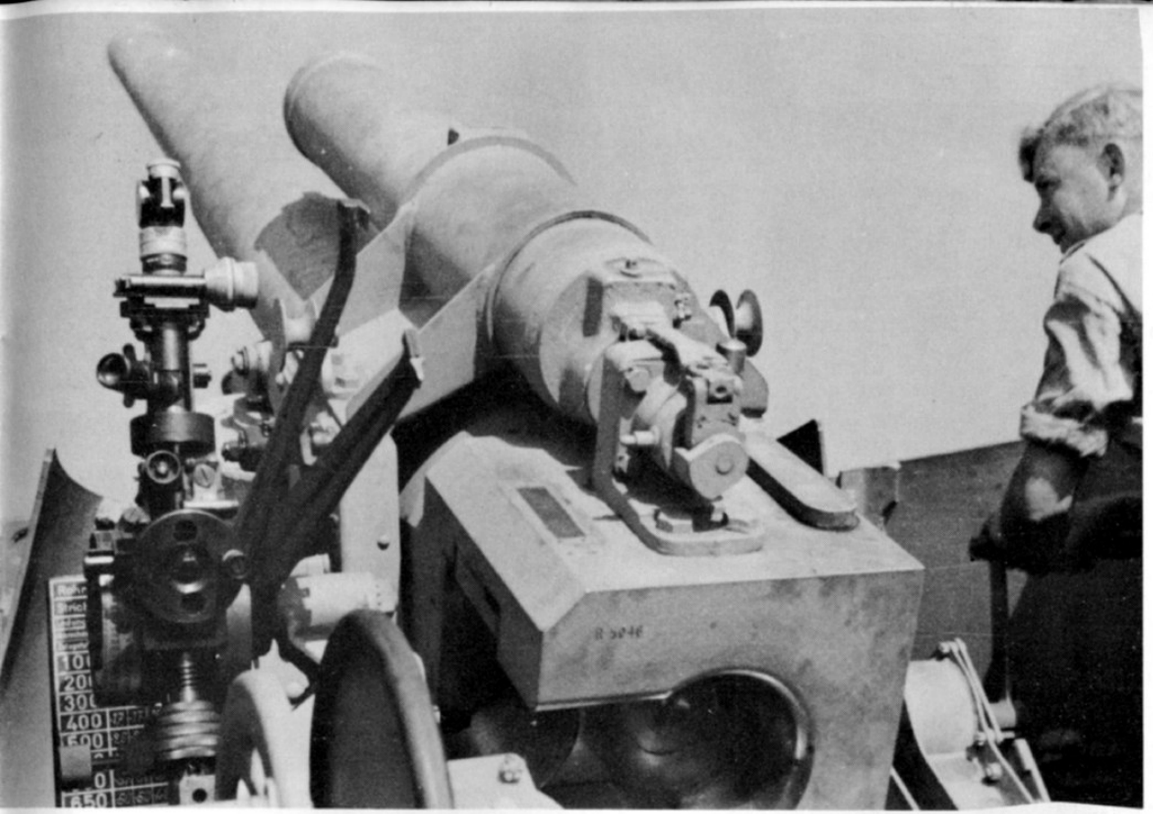
This **Sd.Kfz. 165** carries a network of rope and wire on the sides of its fighting compartment to aid in holding additional camouflage against the sides of the vehicle.

The large fighting compartment shown to advantage. Note the fitting of **"Ostketten"**, (East Front treads); the large treads with their turned in grousers for better maneuverability on snow and ice.

With his right hand on the large elevating wheel, this gunner looks into the sighting device of the large gun. Since these guns were indirect fire weapons, all sighting had to be done with the aid of aiming stakes.

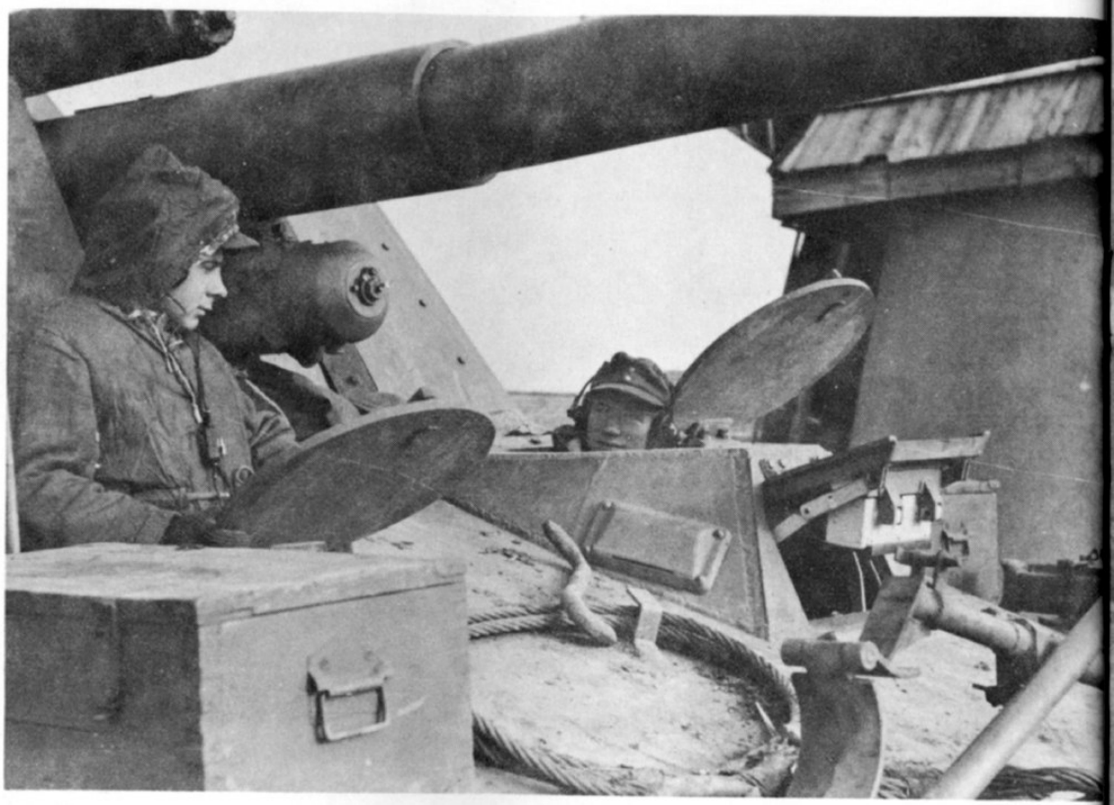


An excellent shot of the large **Feldhaubitze 18/1** main armament of the **Hummel**, showing to advantage the large recuperator and the recoil rail. When special charges were fired, only a few could be discharged before there was the danger of recuperator mechanism failure from the massive recoil pressures.



The **150 mm gun** and its **SE 34 gunsight.** The chart below the gunsight is the standard loading charge chart, showing how much of a charge was needed to propel a projectile a certain distance when the gun tube was at a standard elevation.

These two **Waffen SS** crewmen are wearing the rush-green jacket of the type worn by armored artillery personnel. Notice the nickname **"Fritz"** painted on the barrel of the 150 mm gun.

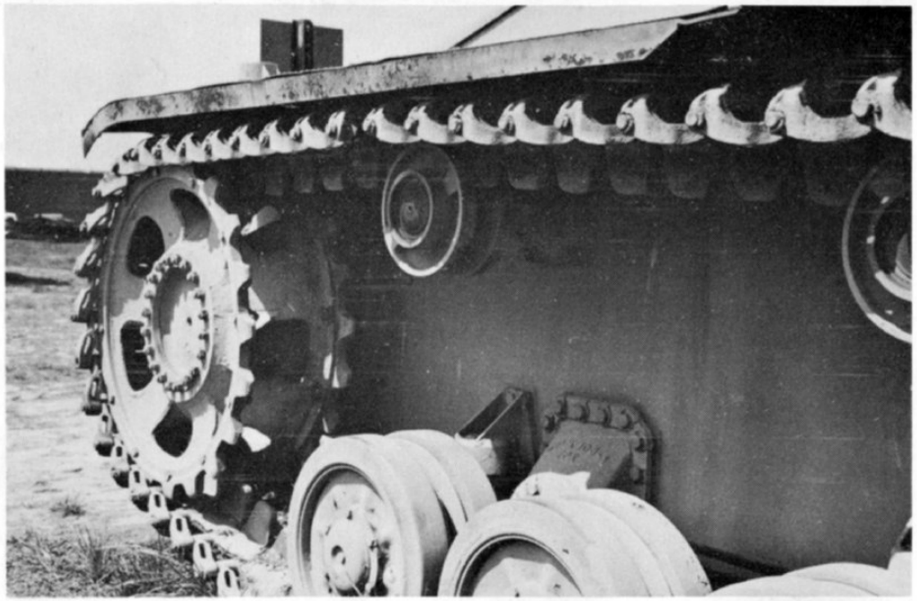


Loaded up and ready to move out. These two **Hummel** crewmembers wait for the order to move. Obvious in this photo are the large wooden storage boxes on either fender of the vehicle.

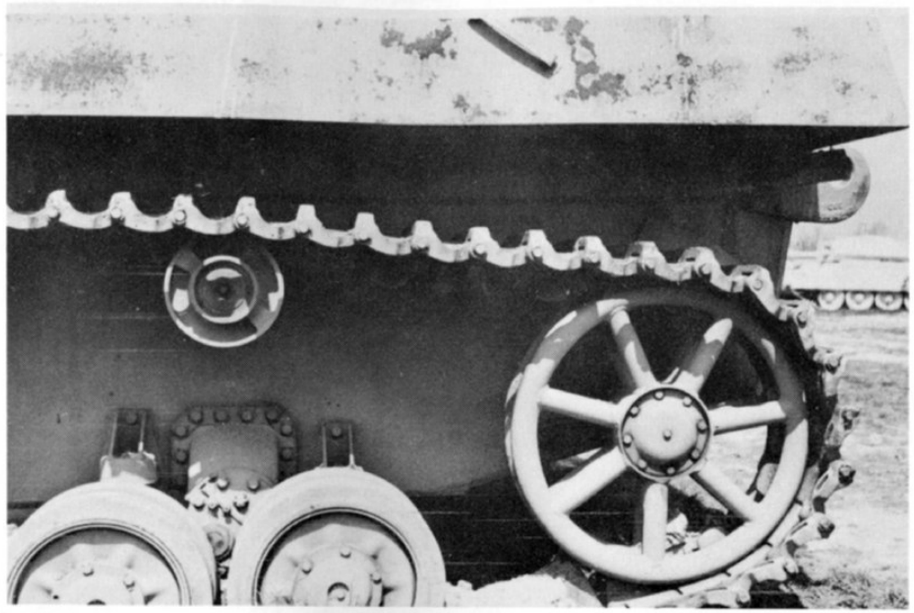
A parka-clad radioman stows his personal gear on his side of the driving compartment of this **Hummel**. The folded travel lock for the gun barrel is seen in the foreground of the photo.

A close-up of the driver's armored compartment, showing the 30 mm sloped armor plate, the upraised view plate with its wide-angle viewer and the bullet splash railing welded to the engine cover plating at the bottom of the viewplate opening.

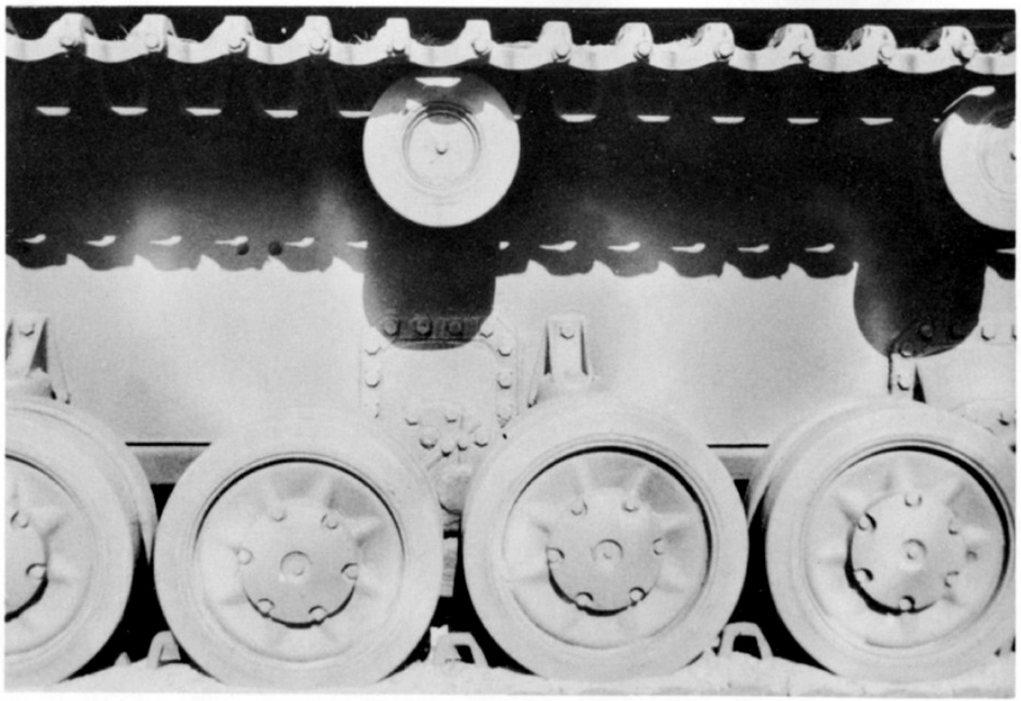
Crewmembers of this **Hummel** perform an unpleasant but very necessary job of cleaning and checking the individual links of their vehicle's tracks; a job most easily performed when the vehicle was not in combat.



This photo shows one of the major differences between the chassis of the **Panzer IV** and the **Geschützwagen III/IV**. The **Gw III/IV** was basically a **Panzer IV** chassis that featured the final drive and front drive wheels of the **Panzer III J**.

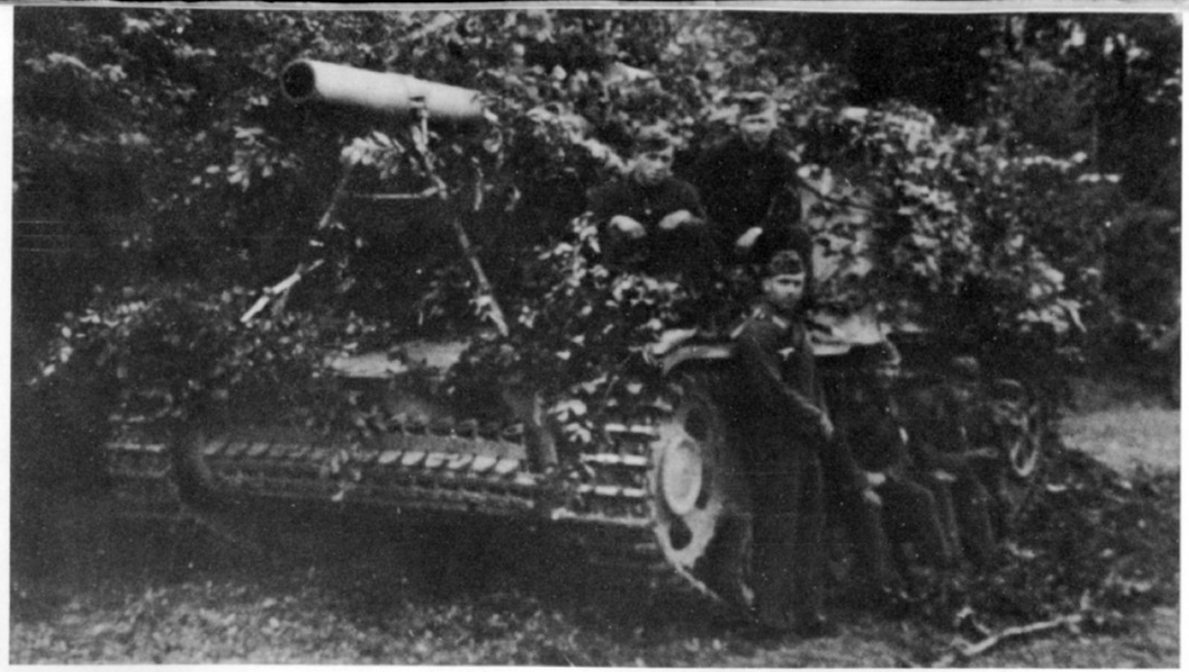


Hummel running gear



A view of the main suspension of an almost factory fresh **Hummel**, showing the rubber-tired bogey wheels and track tension return wheels. Also visible is the lightly sprayed-on overcoating of brown paint on the sand yellow base color.

A very well camouflaged column of **Hummels** parks along the roadside before moving again into the bocage (hedgerow) country of northwestern France during the Allied invasion in the autumn of 1944.

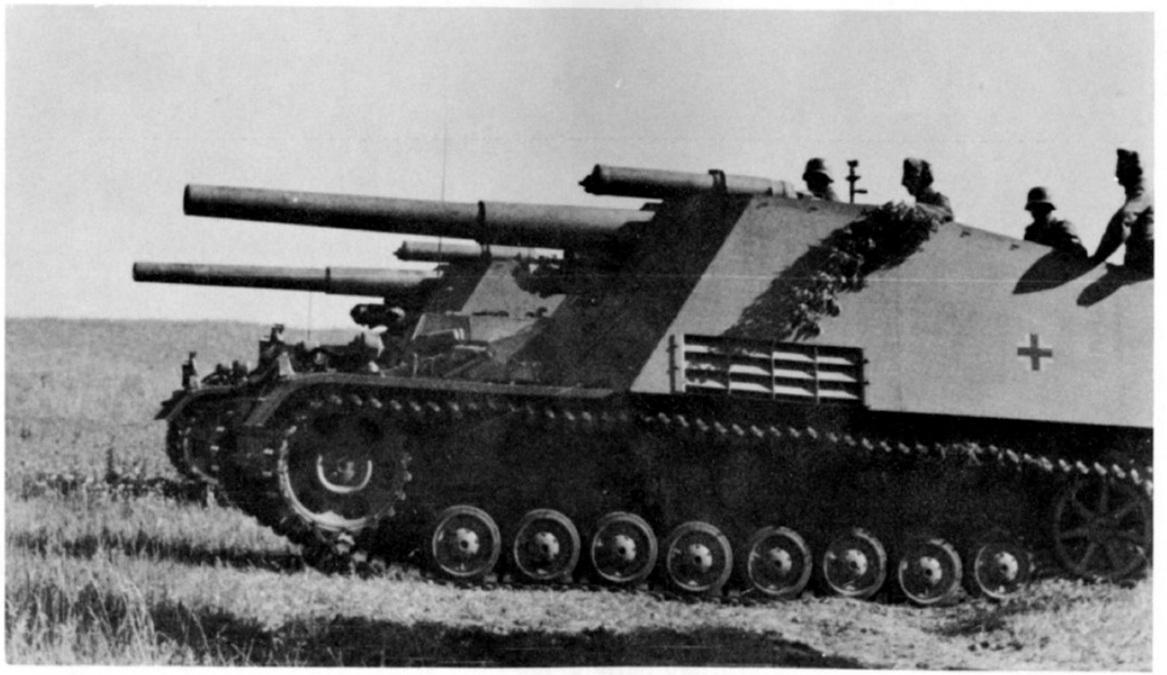


A **Hummel** battery on the Eastern steppe awaits new orders. Each of the vehicles has received a coating of brown and green paint and features stalks of high grass and weeds attached to the fighting compartments to aid in concealment.

The **Hummel** with screening on its top. The license plate shows that the vehicle is one attached to a unit of the **Waffen SS** and the name painted on the gun barrel reads **"Scharnhorst"**.

An interesting and unique shot of a **Hummel** fitted with top screening. The screens were there to prevent grenades and mines from being thrown into the fighting compartment of the vehicle. The presence of the screens indicates that this vehicle is part of a unit that has a reputation for closing with the enemy; an odd characteristic of a heavy artillery battery, normally stationed up to seven miles behind the front lines.

With all guns raised to the same elevation, the crews of these **Hummels** prepare to dismount and set up for firing. The travel locks on the bow of each vehicle are still in their upraised position, indicating that the guns have not been unlimbered for long.



A pair of **Sd.Kfz. 165s** moves up onto the firing line at their new position. Each of these vehicles had its own radio receiver and transmitter which was extremely important when laying effective fire on mobile targets.

Part of a **Hummel** heavy artillery battery unlimbers its guns prior to setting up business at a new position. Note the **Sturmgeschütz III** on the far left stationed with the battery to provide flank protection in their rather exposed position.

Two assistant loaders use all their might to ram the large projectile into the breech as far as it will go while the gun captain listens with his earphones for corrections and other orders to come from the fire control center.

As an assistant gunner listens intently at the rear of the vehicle for the size of the next charge, the gunner adjusts his sights for the next fire mission. Note the other **Hummels** and their crews dispersed in the background.

Ninety-six pounds of distraction on the way! This **Hummel** has just fired its big gun and the tube has recoiled to its full limit. A close look at the photo will reveal the empty powder charge casings which have been discarded after firing previous rounds.

This oddly camouflaged **Hummel** has her gun up to the highest elevation. One can see the stacked wicker basket type containers for projectiles in the right background of the photo.

An excellent shot of a pair of **Hummels** in their firing positions. Note the stacks of projectiles and charges scattered around the battery for easy access of the gun crews. The Russians were excellent at delivering counter-battery artillery fire, so as calm as it may seem, these crews can expect to have some heavy stuff drop in on them at any minute.

The loaders ram a new shell into the breech of the **150 mm howitzer** on this **Hummel**. The crewman on the right is holding the casing into which the powder charge is inserted before it goes into the breech. Note the red and white aiming stake in its stowed position on the rear plate of the fighting compartment below the door.

Getting ready for another fire mission. As the landscape implies, conditions were not always perfect for fighting a war. Note the 14 heavy projectiles in the foreground. The charges of powder had to be inserted into the breech of the gun after the projectile had been inserted and seated.

OLD AFVs NEVER DIE! THEY JUST RUST AWAY. Do they have to?

This **Hummel** is on display at the **Aberdeen Proving Grounds' armor museum** in Maryland. This is a late version of the **Hummel**, featuring a full width compartment for the driver and the radioman. Compare this vehicle with the photos of the other **Hummels** in this section.

Final views of an old soldier. One of the last surviving **Hummels**, she sits in an extremely deteriorated condition on the grounds of **Aberdeen Proving Grounds' armor museum.** With additional funds the custodian can save these priceless artifacts.

TECHNICAL DATA

8.8cm Pak 43/1 (Sf.) "Nashorn" (Sd.Kfz. 164)
Self-propelled Tank Destroyer

Producer: Deutsche Eisenwerke (1943-1944)
Crew: 5 men
Armament: 1 x 88mm Pak 43/1 L/71, 1 x MG 34
Armor: Front 30mm, Side 20mm, Rear 20mm
Superstructure 10mm on all sides
Weight: 24t (24,000kg)
Motor: 1 x 12 Cyl. Maybach HL 120 TRM (water cooled)
300 PS @ 3000 r.p.m.
Speed: Road 40km/h
Fuel Capacity: 600 Liter (approx. 150 Imp. gal.)
Fuel Consumption: Road 250 Ltr/100km.
Cross-country 360 Ltr/100km.
Range: Road 250km, Cross-country 160km.
Dimensions:
Length: 845cm (620cm without gun)
Height: 295cm.
Width: 295cm.
Ammunition: 88mm Pak 40 rounds
MG 34 600 rounds
Production: 475 vehicles

Schwere Panzerhaubitze 18/1 (Sf.) "Hummel" (Sd.Kfz. 165)
Heavy Tankhauwitzer

Producer: Deutsche Eisenwerke (1942-1944)
Crew: 6 men
Armament: 1 x 150mm schwere Feldhaubitze 18(M)
Armor: Front 20mm, Fighting compartment 10mm all sides
Weight: 24t (24,000kg.)
Motor: 1 x 12 Cyl. Maybach HL 120 TRM (water cooled)
300 PS @ 3000 r.p.m.
Speed: 40 km/h
Fuel capacity: 600 Liter (approx. 150 Imp gal.)
Fuel Consumption: Road 240 Ltr/100km.
Cross-country 360 Ltr/100km.
Range: Road 250km, Cross-country 160km.
Dimensions:
Length: 665cm (620cm without gun)
Height: 295cm.
Width: 285cm.
Ammunition: 150mm sFH. 18(M) 40 rounds
Production: approx. 665 vehicles

Sturmpanzer 43 "Brummbär" (Sd.Kfz. 166)
Support Vehicle for Tank Units

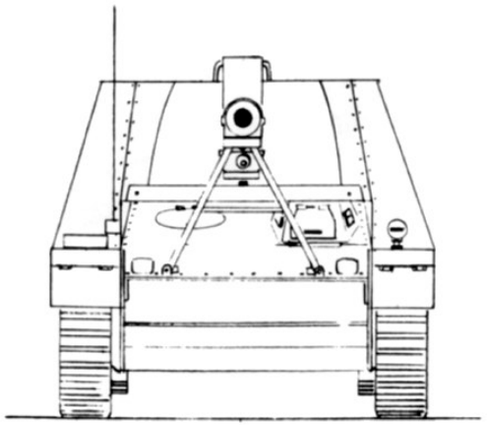
Producer: ..... Deutsche Eisenwerke (1943-1944)
Crew: ..... 5 men
Armament: .....1 x 150 mm Sturmhaubitze 43 L/12, 1 x MG 34
Armor: ..... Front 50 mm, Fighting Compartment 100 mm front
50 mm side
30 mm rear
Weight: ..... 28 t (28,000 kg.)
Motor: .....1 x 12 Cyl. Maybach HL 120 TRM (water cooled)
300 PS @ 3000 r.p.m.
Speed: ..... 40 km/h
Fuel Capacity: ..... 470 Liter (approx. 115 Imp gal.)
Fuel Consumption: ..... Road 260 Ltr/100 km.
Cross-country 380 Ltr/100 km.
Range: ..... Road 180 km
Cross-country 120 km

Dimensions:

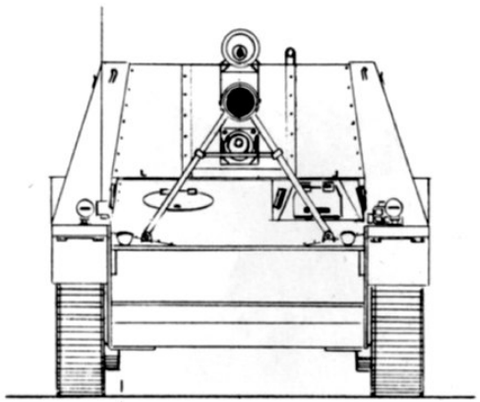
Length: ..... 595 cm.
Height: ..... 288 cm.
Width: ..... 250 cm.

Ammunition: 150 mm StuH. 43 .....38 rounds
7.92 mm MG 34 .....600 rounds

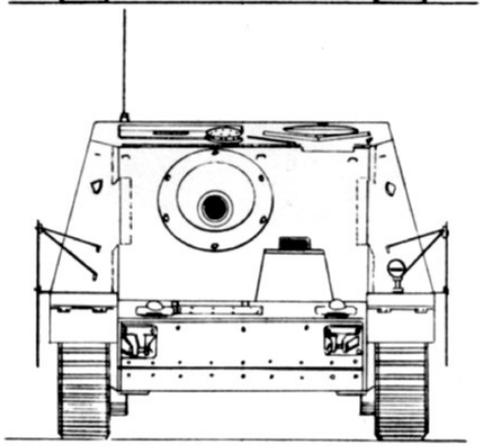
Production: .....approx. 55 vehicles



Nashorn

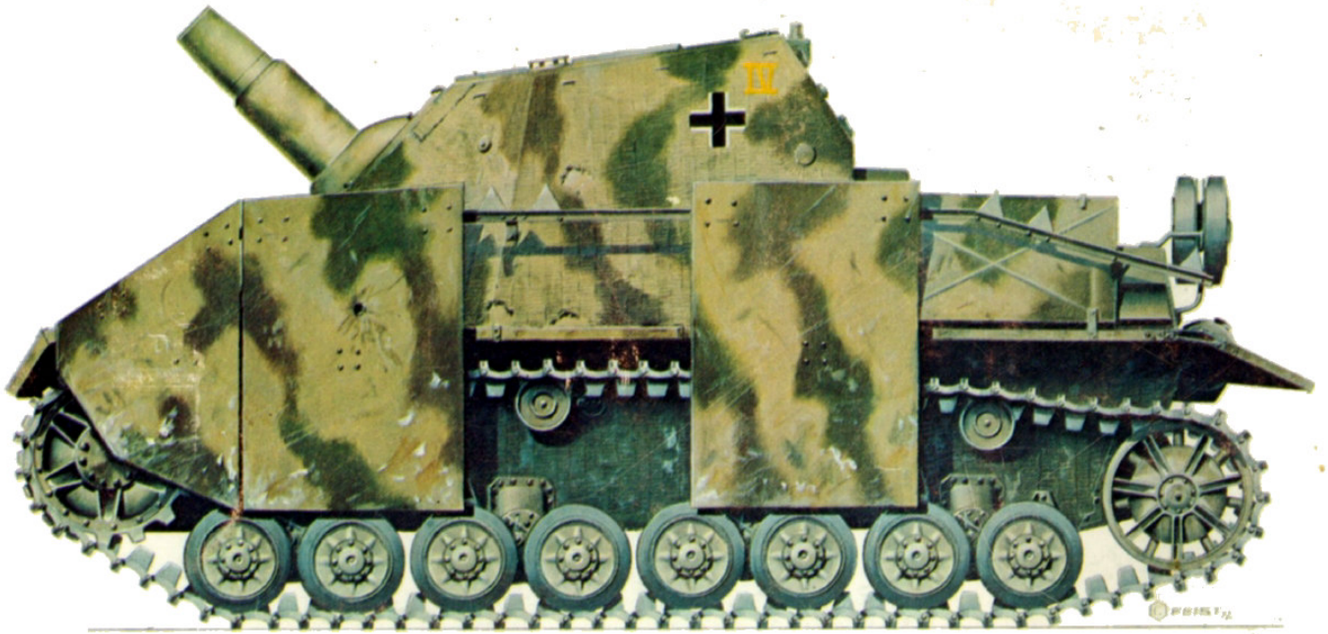


Hummel

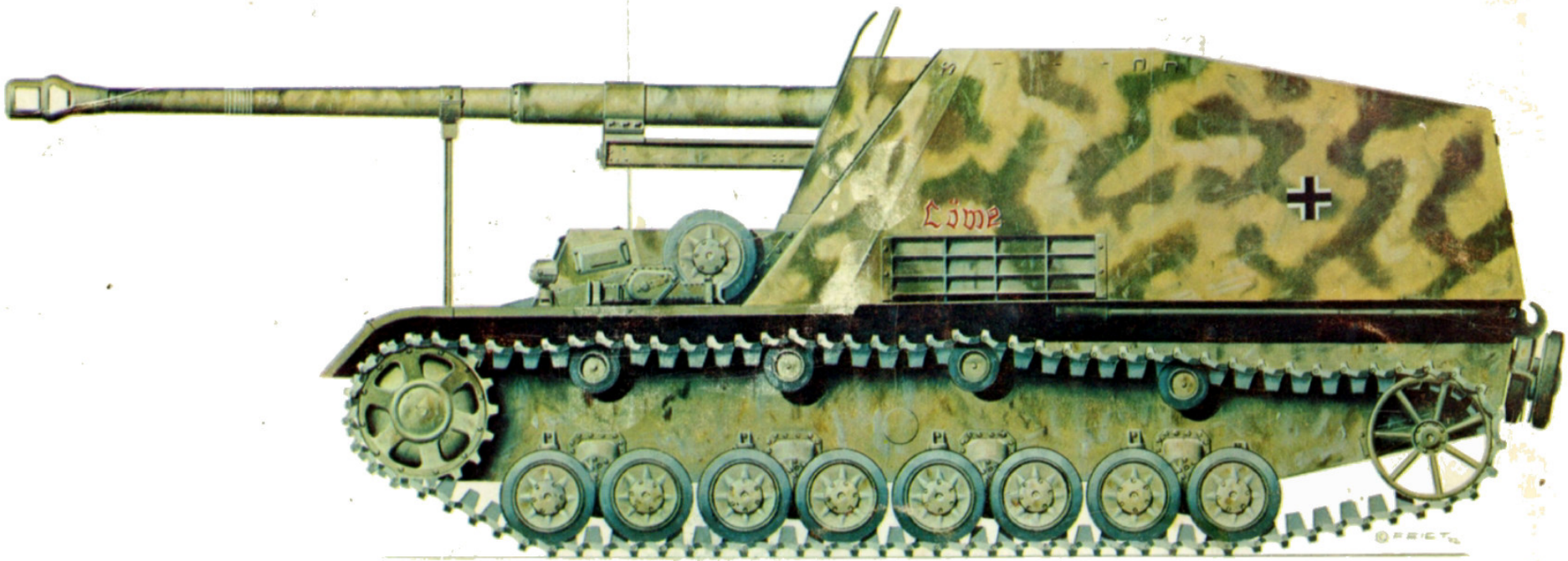


Brummbär

„Safir-Ranndruck"



Sturmpanzer 43 "Brumbär" (Sd.Kfz. 166) 15 cm Stu. H. 43 L/12



Panzerjäger "Nashorn" (Sd.Kfz. 164) 8.8 cm PaK 43/1 L/71